

RECEIVED

APR 0



TECH CENTER 1600/2900

1600

#29

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/464,767A

DATE: 03/24/2003  
TIME: 13:09:13

Input Set : A:\50179-0073.ST25.txt  
Output Set: N:\CRF4\03242003\I464767A.raw

3 <110> APPLICANT: Both, Gerald  
4 Vrati, Sudhanshu  
5 Boyle, David  
7 <120> TITLE OF INVENTION: DNA Encoding Ovine Adenovirus (OAV287) And Its Use As A  
Viral Vector  
9 <130> FILE REFERENCE: 050179-0073  
11 <140> CURRENT APPLICATION NUMBER: 09/464,767A  
12 <141> CURRENT FILING DATE: 1999-12-16  
14 <160> NUMBER OF SEQ ID NOS: 4  
16 <170> SOFTWARE: PatentIn version 3.1  
18 <210> SEQ ID NO: 1  
19 <211> LENGTH: 29544  
20 <212> TYPE: DNA  
21 <213> ORGANISM: Ovine adenovirus  
23 <400> SEQUENCE: 1

P.6

ENTERED

ENTERED

p. 6

```

25 <400> SEQUENCE: 1
24 ctattccatataataacgtt gcacagaggc gggcgctgtg gttttttat tgtttattgt 60
26 catggaattt acaaagaagt aagttgttgg atctttattc acaattctt taacaatgac 120
28 tttttactt attacattt tcacatcttt tactcacat gatattttac ttaaatttt 180
30 tacataacaag ccaaattcg cataaaatgt cttaacttta aaagttaaat tttttttt 240
32 acgcataaaat ggacgtacag cagcaattgg aatagcagga agggccattt taaagtgtgt 300
34 tcctgctgat gccgctgcag aaaggataga tgctatcgta cgcataaacc cccctcctat 360
36 ttgttcatct gctgctttt ttatatcttc tgccaatcta ggtgtatatt gctttgaat 420
38 gctgttcca aaagcttgca tcacatcgatt ttcaattttaa tggattggat ttgcagaatt 480
40 tcctaaaaaa tagcccaacc catctaaagc agttaaaagt attctccctc caggaaccac 540
42 agatataatt aagcggagca accgagaggt taaattccag gtcctccga agagagtatc 600
44 taggatcagg ccaagaagtg aaccaaaaag acttgttaatc agaagttgtc tgatatgctt 660
46 tggagaggac tggaaaaattt gcaaaacggt atctaattgac catttcttct ttactttac 720
48 atctgtatca tggatccat cagaaggctt tattggaaag taccattggc cacgacatc 780
50 tttgaagact tctgtttttt gaaattctgt tttcggttaag cgactagcag ttatggatt 840
52 aggaatattt acggtatgt tattcacatc tacaatttctt ggaggaatcc atcttcata 900
54 ggatgaaatg ggttttgtgg gttcttcaa tatataattt cgaggagggt ttttccaaaa 960
56 tctctgaaca taagtattttt ctgatttgg cggttttttgc cttttcgcgc ctcttttct 1020
58 tggcttggt ctttggaaattt ttttcttctt ttttctgttag gtcctccctg ctaaagctgt 1080
60 gttatttgc acgtacatcc tggtagctac acgattttcc cggactgcaa attttttgc 1140
62 caaatggaaa agaaatttgc gaaaccttctt attaatcata taaattgtca gtggaatcat 1200
64 gaatcagata gtgcaggatt ttttctttt gataactgata atttataacta ttatgtattt 1260
66 gatcaagtgt ctggatatg tttaagagat ataacttttc attgtgtatcg catgtggta 1320
68 gcggtttgc tttgtttgtt caaatctaaa ttgtatgtac acaatattctt agcggaggta 1380
70 catgttatgt aatgaaaatg acgtcgggga ttgaatggat tgagccttac ttgacatttt 1440
72 tctgtgattt ttttgccttta ttagggaaata aatttgcgttgc gcccgtacgaa tggagattgg 1500
74 aatgactcct gcatttacag aaaggaattt gtactgtgtt ttgcttgact ttaatttaag 1560
76 atggatcatcg cagatatttta acccaatatg gattaagcca aatttgcgttgc ctttctgt 1620
78 tttttaaaaaaa aaaaatggcct ttatgttgc tagcgtacttgc gcggtttaaattttatcat 1680
80 ccctggtaat gtttgcataa aacttgcata catcaagaaa gatcttcctg aagattttac 1740

```

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/464,767A

DATE: 03/24/2003  
TIME: 13:09:13

Input Set : A:\50179-0073.ST25.txt  
Output Set: N:\CRF4\03242003\I464767A.raw

82	cgtgtctatg	ttttgtgtct	tagtgtgtg	gcttgcttct	ttctgtaaag	gttctaattt	1800
84	agctgaaact	cggcagaatt	gtcacgcgg	aagcaaattt	ctggcacaac	tatcaaattt	1860
86	aataaaaacc	taatttttag	tttgtaaaaa	tagaattcaa	attttaacg	ccacaatgac	1920
88	ttcggcggag	ttttctgtt	aatttcctt	tgtttctaag	ccaattgttc	catggcctgc	1980
90	ttcggcatct	tctaataatt	catcgagtca	gaatattgac	tttcctgttc	ttaaaccaga	2040
92	tcaagatcca	atagccttct	ttcaaactaa	caatacggct	tacttacaac	ctggagctac	2100
94	tttattactgg	aagtgtatcg	aactgtcaaa	gcctattcac	atttacggtc	aaggagctac	2160
96	agtacaactt	gtcggacctg	gacctgttt	tgtttcaac	agtgaaagtg	ttattcctga	2220
98	agattttac	gtcgtgttt	aaaatatcaa	ctttattgaa	gatgaattt	ctattagaag	2280
100	tggccaggtt	agtttaggac	ttacaactca	cagtgtgt	tggtttatca	atgtatggaa	2340
102	aacttcaata	gtcaattgtt	actttaaaaa	ttttagggg	gcggctctt	ggtattcaga	2400
104	taatagaat	ttttggatg	cgagaaaatg	gaatcagcag	catttagttt	caaattgtcg	2460
106	ttttaatgg	tgtagaattt	gaatttctaa	tactggttca	tctgaatatt	ccatagccag	2520
108	tcaaaatcaa	ttttatgatt	gtcaaatactg	tttaatgtt	accgggggt	atgggtctag	2580
110	aaataataat	gttattgtt	actgttagat	tgttatctg	catgttggag	ataacatgtg	2640
112	gtatgaaggc	cattccgaaa	ataataatcc	cgctaagggt	actttctgca	ataacataat	2700
114	taaccatgt	gataacggag	gcaatgtct	gcctactcag	tttaaactta	cagatggatc	2760
116	aacgatacag	ttagcatcat	tttatttta	tgataatcaa	gaaattccac	cttgttata	2820
118	cggtaattt	cattggttt	gagatgtaaa	cattgttaat	ttttctacca	caaaaattga	2880
120	taaatggtgc	attactggat	gtaatttctt	tggtaataca	catgcagcta	acgatgctgg	2940
122	tcaagttcag	gttgcgtt	ctgtaaaaga	caaagtgtt	attattgggt	gttctggtaa	3000
124	taatgttaacc	atgaaaaata	ttgtagaagg	taacatgact	ccaaaaattt	gtacaataaa	3060
126	gtaaaaaaact	ttttattcaa	aacaaaatgg	attacattt	aaacgtttt	catattgatt	3120
128	ctgcgtataa	gttctttt	taaacactt	tctaatttcc	atacatgctt	gataaaacaa	3180
130	actttgtaaa	ttcataataa	taggttttgc	ttgatcagaa	ggtgaataat	agctccatct	3240
132	aaatgattcg	gtaataggaa	cattattata	tattaaccag	ctatatttt	agttactct	3300
134	tgcgtatgtt	actatatctt	taagtacagg	gataagtgc	ctcgaaatc	caaaagaata	3360
136	gttttttaata	aatctattt	tctgtgaaga	atcaagctgc	ggactaataa	catgacattt	3420
138	tgattgaatt	tttaaatcct	taatatttcc	tctatcatga	cgcgggtca	tattatgtaa	3480
140	aactactaca	acagtgtaac	cattacattt	ggcaaata	ttaaaaattt	ttgacggtaa	3540
142	agcatgaaag	aaagaactt	tagaatgaca	tgatccaaat	tgattcatac	attcatctat	3600
144	tataatacag	atagatcctt	cacttgcagc	tctgcagaat	atattatctg	gattatcaat	3660
146	attagat	gtatcgaaa	tagcatctt	gaaagcta	tgtataaatt	ttggatttta	3720
148	tgtttttgtt	agtggattt	agaatgcata	gtagtttctt	tcaacacact	gtgcttcca	3780
150	cgcattttt	tcttctaaatg	gaacagtacc	tttttcttgg	gttatgaaaa	aaattgtttc	3840
152	tggatttgg	tcaatttagt	ttccagat	aatatttctt	ataaaatttgg	attttccgct	3900
154	acctgtgggt	ccatatacag	taacaatgaa	tgggtgtat	ccgcaggta	aactgggtat	3960
156	acagccatct	tttaacagat	tgtgagctt	atttacattt	ttttgataat	ttacagcaat	4020
158	attgtgtaaa	tcagtcataa	gttgaccat	atacatacat	ttatcaaaaa	cttcttgact	4080
160	ttctggaaat	ggatttctgc	aaatagaagg	atctatctt	acaacatcat	ttttccaatt	4140
162	taatgtgtca	cttaaaaatt	ttcccaaaaa	ggattttctt	tcaatgtt	ttgcggtctt	4200
164	gtattttgggt	gtcttcttgc	gtacgggtt	agtaagtatc	ctttcttcca	ctggatccct	4260
166	ttccttcatcg	tttgatcctt	ccaaaggctt	agaattctt	ttagttgtt	ctctaccacc	4320
168	gtgaatggta	catcggttcc	acttgcgtt	tgcagtgtt	ttttttaact	tttcctcgat	4380
170	gtctgaaact	ctttctgtt	ttgttctt	aaattatgt	cagtaaaaaca	atgtttttaga	4440
172	atttcatat	ttaaacaatt	tttagcatga	cctttggctc	ttaattttcc	ttctccaata	4500
174	aatttacat	tttttacaat	tatgtcttt	aaagcatata	attttaggagc	taaaatacat	4560
176	gtttctgaac	tgaatgtt	agctccgca	cggtaaaaa	cagtttgc	ttcaaccaac	4620
178	caagtttagac	atggatgtt	ttcatcaaag	attaaattt	agttatattt	ttaagtctt	4680

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/464,767A

DATE: 03/24/2003

TIME: 13:09:13

Input Set : A:\50179-0073.ST25.txt

Output Set: N:\CRF4\03242003\I464767A.raw

180	tgtatccctt	ttgataacat	gagttggtag	ccctttctg	ttaagaataa	cgagtctgt	4740		
182	tcaccataaa	tacttttat	ctcccttct	atgtaaagg	tacccatata	ttccccat	4800		
184	aaaattctg	cccaactact	catgaaaag	ctggccaag	ccagcacaaa	ggatgctat	4860		
186	tgagttggat	atcggttgg	cttgatccat	tcttcctt	cctcaatagt	tgttaaaatt	4920		
188	aaatcattac	aatcagcaga	taaaaaaagtt	ataggcttaa	aagtcacgt	atcttgattt	4980		
190	cctataaaaa	gtggaaaatt	aaaatttca	tttgtgtt	tggaatctt	ggcgccatt	5040		
192	tcaggttagt	ttgaaaaata	ctgattccac	tcaaata	gttttggtaa	tgatTTacta	5100		
194	atcacagttg	tgtatgtat	aatttcagct	gatccat	ctaata	tttatctt	5160		
196	tcttcaat	tttcagcaaa	cactactt	tttttatcta	tacgggt	aaacgaacca	5220		
198	tataaagcat	ttgataacaa	tttacttata	cttcgctgaa	tcttgg	tactttactt	5280		
200	gcttttctt	tagccataat	atttactt	acatatttt	gacataacgg	tttccagt	5340		
202	ctccatacag	catacattt	agagctttt	attat	tttgc	atttccat	5400		
204	aagggtat	aatcgataga	ggtcagtt	tcatttata	atgtttcatt	tgaccagcat	5460		
206	aactttccac	ttttttaga	acataatgg	ggtaacacat	caagataatc	taatgatgg	5520		
208	ggttcacaat	cggctaccac	aatcataggt	ttgattgaat	tgtcaaaata	atctat	5580		
210	tcttttctt	gtagtagttc	ttgaaaagtaa	tctat	ttgt	cattgg	aaaagcattt	5640	
212	aaagttttc	catatggaa	tggtatcg	aaggcact	catacattt	gcagat	5700		
214	tacacatata	ttgcttctt	aaatatttct	aaaaatgaag	gataacat	tccctt	5760		
216	aaactcatc	taacaaaatc	atacattt	tctgatgg	cttccaaatt	tcttaggaat	5820		
218	tcagaggat	gatcttctt	attataaaag	atttggtaa	acaatgtt	agtattacta	5880		
220	ctaattgtat	gacgttggaa	tatattaaa	gaacact	gctttaaaga	tgttgat	5940		
222	aactcttgc	aacccat	aagttttca	actaattt	gg	ccgtaa	tttcatca	6000	
224	atacaatact	ccttagttt	ctctaaataa	ttgtat	ttt	ggttgtt	tggttt	6060	
226	tgttaatatt	cttcaat	atttccat	tttgaact	gataacc	attt	tttctt	6120	
228	tcatattctc	ccaaat	aaaatcattt	atttccct	aaggacaata	acctt	tgctta	6180	
230	acactcaact	gatatgcgt	agcagcgt	ctttaaaga	agtgg	ttttaa	caaaaatgt	6240	
232	tcccttaacca	taaattt	acccat	ttcata	ttt	aaaattt	aattccattt	6300	
234	ttccatctt	cataagt	atgtgaag	ttctt	aaag	aggattt	gg aagagata	6360	
236	gtaatatcat	taaataacag	tttccag	cgagg	cataa	agttctt	gtc	6420	
238	attgaaagtt	cttca	tatttctt	aata	catgac	ttgcaag	tttcatca	6480	
240	aaaccacaga	tattatgacc	tactacat	aattcaat	atcttgg	tttgc	caactgtt	6540	
242	aattttttt	ctttaat	gaccatgat	tcttca	at	aaattt	gatcaagacca	6600	
244	tgat	tttccac	aaaacgtt	ccag	tattt	tttagt	ctctgtt	6660	
246	aattttttaa	aagctat	gcc	aatttca	tctt	ttt	ttaacatt	aaaacattt	6720
248	ctgttac	cataac	atcggt	at	ttttaga	aa	attttt	gat	6780
250	catccaat	actt	aaaaac	caaca	atgta	ggat	tttccat	caaagaatgg	6840
252	taagtat	ttaat	ataaaca	ataaaca	aaaagac	gtt	ttt	ggctccaa	6900
254	ggattaaatt	tgat	tttcc	ccacc	ag	tttcat	ggt	ataatag	6960
256	aagtcccgt	ttctggat	gca	at	tttact	aaat	tttgc	gcagaatt	7020
258	catttattt	gtt	ttt	aaat	ttt	tt	tc	ttt	7080
260	tctattggta	acaat	tttcc	atta	gaa	tctt	aaaa	tcttgg	7140
262	aacttccata	tttt	aaaga	tacgggg	tt	aaat	tttgc	aaatctaa	7200
264	acatttctt	ctt	tttgc	aa	at	tttgc	tttgc	aaatattt	7260
266	aaactttttt	caaaat	ttt	gt	at	tttgc	tttgc	atatatttca	7320
268	gtaatataa	g	tttgc	ttt	tttgc	tttgc	tttgc	tttgc	7380
270	tttccgtac	tcg	ctt	aaag	tttgc	tttgc	tttgc	tttgc	7440
272	cagacaattt	tatt	tttca	gt	at	tttgc	tttgc	tttgc	7500
274	tttgcgtat	tactt	tttct	at	gt	tttgc	tttgc	tttgc	7560
276	attgtctt	ttt	tttgc	tttgc	tttgc	tttgc	tttgc	tttgc	7620

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/464,767A

DATE: 03/24/2003

TIME: 13:09:13

Input Set : A:\50179-0073.ST25.txt

Output Set: N:\CRF4\03242003\I464767A.raw

278	ctaaaaaaatc	acgagttatt	ctgctataata	gttgtctgaa	tgcttggtt	tctctattaa	7680
280	accaaactct	agtaaataata	tcttctccat	tttcatttct	acctcttaat	ataatttga	7740
282	caaattggat	tccaatattt	ctggcagcta	acctattttg	cactaaattt	aagtataagt	7800
284	aatatagcgt	gcttgcaca	tgctctaata	taaagaaata	cactaaccat	tttgaataa	7860
286	aatcatcagt	caatctattt	tcattataaa	atctaataag	taattgaaaa	aattcacttc	7920
288	cgttaattaa	aaaattactc	cttcttgctt	caggagttaa	ttcttctct	aaattttga	7980
290	ttaaatctac	tattgaagct	atcacttcat	cattaaattc	ttccctactc	agatcgctt	8040
292	agctcggtc	gcgatctgaa	aatccttcat	cttctatttc	aggaacagta	agaggagaac	8100
294	tagaagttt	ttcaacattc	cttacccttt	ggcgtctatt	aacaggttaat	ctataaataa	8160
296	atcttctgat	tacatcaccc	cttgaacgtc	tcattatttc	agtaataagct	ctataatttt	8220
298	ccctaggctc	taatctgaat	gttaatccta	ctctgtccc	tgaccttaaa	gttaatgctc	8280
300	caccatgcat	gccacccttt	cctaaagtt	atacagttgc	taaatcttt	aaattaattc	8340
302	gatttcagc	ttcttgaatt	tccagctgt	aaaattcatc	tataaaaagc	tcaatccaga	8400
304	attcagaaaa	aggtaagtct	aatatacatt	cactattatg	catgttagac	aaaattaaaa	8460
306	attacataa	agcttttta	atttacaaa	ttaactttat	aaggtaagta	tcccttctt	8520
308	gcaaatttaa	aaccataaaa	gcttgagaaa	aaggttgata	atgctgctga	aaagatctat	8580
310	tctgatttt	agctgaaata	gcggagccaa	aaccttgcatt	gtctgcaagt	tgcaagactcc	8640
312	ctaattttct	atccattaaa	accgcgttt	gaatttgact	aattgtttgt	gaaaatttt	8700
314	ctacatttt	aattgtctc	atatatgacc	cagtatttt	ggagtatgaa	caatcagtt	8760
316	aaatttgcca	ggtcatgcgt	ctctaaaaac	ttataaggtga	aagataacaac	ttatatgaaa	8820
318	tgttgcgt	agtccgctga	tcaaaccagat	actgtttaa	aactcgcgcc	acataaaaaat	8880
320	acccaattaa	taaatttggt	ggaggttctc	cttcaaatgg	tggtgtgaa	gtaacaggtc	8940
322	ctcttgggcg	taaattcgagt	aattgagtc	ctggataatt	aaaaatcga	ttagccatt	9000
324	ttattccct	ttcatgtata	gtccttgacc	tggcaatact	tcgattattt	aggtcaagtg	9060
326	ttaaacgtaa	atatcgtaag	gtatgttgc	tttgcctcag	gagttgtgc	cattggtgaa	9120
328	tctgcaaggc	aaacaaaaaa	tttatcttat	tactgcagat	gcatccatt	ttacaaaatt	9180
330	tacgttcatc	attggaaact	ccagacttat	caagcaactc	cccgccacg	tcaaataaaa	9240
332	atgaaaaaga	tgaatttga	ccagcagtt	gcatttctag	caaaccatct	gatgaattt	9300
334	atatgagacg	atctcaaaga	gatgataatt	tacctaaaag	tcagatacc	gtagtagata	9360
336	tactacatga	taaaaatcct	aaaatggcag	aagaacgaga	cttaatgtat	aatcttctg	9420
338	cttgcataaa	acttgatgt	tctaaacaat	taaaaaactga	tatgttcagg	ccggattttg	9480
340	cttggacttag	tccagctcaa	agacacatag	aagccgcaga	gctaaagaga	aatggatctt	9540
342	atactcgtag	tttagaaacaa	tggacacatg	attctttat	aagtcatgtt	aaacaattac	9600
344	tttcttagacc	atttataatct	ctaggtattt	catatttgg	tgatttttg	cagacttatt	9660
346	tagatcatac	tgaatcgct	tctttaact	ttcaactgtt	tactttata	aatactgtt	9720
348	cagaaaatac	tttaaaacgg	attttaaaac	acatttctaa	aaaaaatgaa	aaaaatcaat	9780
350	atgtaaatca	atggttgatt	gatctcat	catgtatata	tctaattata	agagatgaac	9840
352	aaaatgttac	agaacaagtt	aatgcctt	tagtaactag	taatcactt	getttacatt	9900
354	ttgcaaagaa	agctacaggt	ggattctatc	ctacagcaga	caagttagcg	aagactcata	9960
356	ttttttccaa	gagaataatt	tttagaatac	tttcgttagc	agaaaagtata	ggttgtctata	10020
358	ctgtgaatcc	atattgcaaa	aatccttga	aaaagtcaaa	agtagaaagta	gaaccaagtg	10080
360	acgaaatgt	tatgttcagc	ttaaaaagg	cacttgaaca	tcctgtatcc	gacgaagacg	10140
362	aagacagtgg	acttcaaaat	gaataattat	cataaatgg	cttctaattgt	tatagatgca	10200
364	attctatcaa	acaaagctct	tttagctata	aaaattttaa	aagtcaaccg	tttgc当地	10260
366	aatttgaatgc	tttagaaatca	gcagttgtgc	ctccaaagaaa	agatgatact	cctgaaatga	10320
368	tagcaaatct	tttaaaagaa	tttagttgctt	tggagctat	tcgcagtgat	gaagttggcc	10380
370	cattatattc	tgaccttctt	atcagagttc	acaaatataa	tagcttgaat	gttcaatcaa	10440
372	atttgc当地	tttacacgga	gacattaaat	cacttcaatc	cgatataatt	agaagttccg	10500
374	atattccaa	tttaaqtaat	caaqttgttt	taaatacatt	tttaaattct	ttccctcaaa	10560

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/464,767A

DATE: 03/24/2003  
TIME: 13:09:13

Input Set : A:\50179-0073.ST25.txt  
Output Set: N:\CRF4\03242003\I464767A.raw

376	ctgttacatt	tggacaacat	aattatgaag	ctttaaaca	aactctaaga	ttatattgtta	10620
378	atgagacacc	taatattaca	gttttagat	caggaaatga	tactttaatt	caggttaaca	10680
380	taacaggaat	tcatacaatt	aatttgaatg	atgcattaa	aaatttaaaa	aatttttggg	10740
382	gaatagtatt	aacaggtgaa	tttattccag	gtgatattac	aagcagacta	acagctaata	10800
384	caagagtact	gctttatTTT	cttgctcTTT	ttacaaatga	taatacattc	acacctgata	10860
386	cttttctagc	tttactcatg	aaatttatata	gattgacagt	ttcttctgct	ttagattttg	10920
388	aagaagaac	tgaagctgaa	gtagaaaatg	tagctcaaca	aataggatcc	actagtgcag	10980
390	attttacaaa	gactttagga	tatctattaa	aaaacaaga	agaatcattt	tcgcctccca	11040
392	aatcattatc	tcctagacaa	ctgggtattt	taaggttcat	acagaaaagt	ctggtagata	11100
394	aaattgatag	aaataatgaa	gatccatggg	atgctttaga	aactttatct	tattcatttt	11160
396	ctccgtcatt	ttatgaggcc	aatgggcTTT	ttattagacg	gttaataact	tatatggaaat	11220
398	ttgccttacg	taattctcct	acttacttca	gagaaaattt	ctccaacaaa	tattggatac	11280
400	cacccaattc	atTTTggact	caaattatg	cagactttt	ttcggaaaag	aaagaaaaac	11340
402	aaaatttcga	aacatttgaa	ccgcgggaa	ttcTTTaca	aatctctgag	gaagaagctg	11400
404	tcccgcatac	agaagatTTT	cagtcaGCC	tctcgccCTC	tatggccaa	acttcactcc	11460
406	ctgctcTTTc	tgtgtcagaa	tacagttagc	tgccTcggtc	agcttttac	cctctcagag	11520
408	aacgtatcca	agagagcatt	tcaaaggc	tcatccCTCC	tttgacaggc	tatgtcgaa	11580
410	aacaaatagg	tgaactatt	ttccCTGta	gtggagatct	tgtagcaccc	gctgcgtctt	11640
412	tagttgcagc	acaattggTTT	gattcaaggt	ttaataacag	aagacaaaga	ttgaaagacg	11700
414	cagccagaaa	gcgtcaccgc	tatgttagag	agatgcataa	tatttctgat	aaagagtcaa	11760
416	atgcttctaa	tgatacggta	atatcacTTT	tgattggaca	tggttgcgc	actgaaaatc	11820
418	gttttgaata	tttgagacct	aaaggtgaa	attatttata	ctaataaaaa	tcataacaga	11880
420	cctgacgggc	ggtcatcTTT	ttttatttga	tgcagaaatt	tgtacctcca	ccacgaatcc	11940
422	ttgctccaac	agagggtaga	aacagtattt	cttatacGCC	tctggcacca	ctgcaagata	12000
424	caacaaaagt	attctttatt	gacaataagt	cttcggacat	tgaaagttt	aactttacta	12060
426	ataatcacag	taactttttt	acaaatatta	ttcaaaatgc	tgatttgca	gcggatgaag	12120
428	cagcaacgc	agatattaaa	ctggatggaa	gatctagatg	gggcgggtgaa	ctgaaaactt	12180
430	ttataaaaaac	aaattgcccc	aatgtttcag	aattttttaa	cagtaatagc	tttctagcca	12240
432	gattaatggt	agataaaaact	gatccagaac	atcTTTaaata	cgaatggta	caaattacaa	12300
434	ttcctgaaagg	caattacact	ggaagcgaac	ttatagatca	acttaacaat	ggtattttaa	12360
436	acaattactt	agaagtggga	cgccaaaaa	gagtagaaat	tgaagacata	ggagtaaaat	12420
438	ttgatACAAG	agatTTTca	cttggatATG	atcctgaaac	gggactaatt	actccaggaa	12480
440	aatatacata	taaagctttt	catccagata	ttatcttgct	acctgaatgt	ggcgttagatt	12540
442	ttacatattc	tagaatttaat	aatatgttag	gtataagaaa	gagatttcca	tatactaaag	12600
444	gatttcaaat	tttatacagt	gatttgcga	aggaaatat	ctctccatta	ctgaattttaa	12660
446	ataactatcc	tcattctatc	gaacctgtaa	tgcaagacga	aaatggagtt	agctataatg	12720
448	tagaaaaaat	aagtgacaat	ccccccagat	ggcaaacaaa	gtacagatct	tggactttaa	12780
450	gttataaaaa	taatggagga	gctaaagccc	taactgtact	aactgtccg	gacataacag	12840
452	gaggatttag	tcaaatttt	ttgtcaatgc	cagatactt	taaagcacct	attactttt	12900
454	ctaacaatac	tacaaagcc	gaaacactt	caattgttgg	attacatatg	tttcTTTaa	12960
456	aagcagggtt	agttcataat	ataaaatgcgg	tttattctca	acttttgaa	caaattacaa	13020
458	atacaactca	agtattcaat	agatttcc	aaaatgtat	actaatgc	ccacacTTT	13080
460	gcaccgtAAC	atggataagt	gaaaatgtcc	cctttgttgc	agatcacggg	attcagccat	13140
462	taaaaaacag	ccttacaggt	gtacaaagag	ttactataac	agacgacaga	aggagatctt	13200
464	gtccatacat	acagaaatct	ttggcgactg	ttgtccCTTAA	agtacttca	agtgcgtacac	13260
466	ttcagtaaca	atctggctga	tatctctggg	ccttatacTTT	ctggAACCGT	tatgtctatt	13320
468	ttagttagtc	cctctgataa	taccgggtgg	ggtattggaa	catcaagtat	gagggtctact	13380
470	ggcttgaat	tttctaaaaa	acaacctgtt	agagtgc	cttattacag	agctcagtgg	13440
472	ggacagcttA	atgctcgta	ttcacttgag	aaactaaaaa	ccaaattgaa	atattatgaa	13500

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/464,767A

DATE: 03/24/2003  
TIME: 13:09:14

Input Set : A:\50179-0073.ST25.txt  
Output Set: N:\CRF4\03242003\I464767A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos. 5,6